INSTRUCTION QUEUE FOR EXECUTING AND RETIRING INSTRUCTIONS IN A DSP

ABSTRACT OF THE DISCLOSURE

For use in an instruction queue having a plurality of instruction slots, a mechanism for queueing and retiring instructions. In one embodiment, the mechanism includes a plurality of tag fields corresponding to the plurality of instruction slots, and control logic, coupled to the tag fields, that assigns tags to the tag fields to denote an order of instructions in the instruction slots. In addition, the mechanism includes a tag multiplexer, coupled to the control logic, that changes the order by reassigning only the tags.